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FIGURE 1

5'-tccatctcgggggtgcaacaggaagtgaccgggcaagccaaggctttcctgtccttcgag 60
 S I S G V Q Q E V T R Q A K A F L S F E 20
 aggatgccggagatccagctgagccgcccgcgtccaaccgggagaaacctggctgtgg 120
 R M P E I Q L S R R R S N R E K P W L W 40
 ttccgaccgccaagtctctgatcggttaagggtgtcatgttggcggtgacgcagggccgt 180
 F A T A K S L I G K G V M L A V T Q G R 60
 gtggtcaccaacgctctgaacatcgccaacgaggactgcatcaaggctcgccgccgtcctc 240
 V V T N A L N I A N E D C I K V A A V L 80
 aacaatgcgtttctacctggaggacctgcacttcacggtggaggggacgcgacacgcactac 300
 N N A F Y L E D L H F T V E G R D T H Y 100
 ttcataagaccagcctcccggagagcgacctgggagcgctgaggctgacaagcgggagg 360
 F I K T T S L P E S D L G A L R L T S G R 120
 aagtcgctggagaacggaagtcaacgtgactgtgtcccaggtccaccaccgtggtgaacgg 420
 K S L E N G V N V T V S Q S T T V V N G 140
 cagaaccggcgcttcgcccagctggagctgcagtacggcgctctagcgctccacgtgcgc 480
 R T R R F A D V E L Q Y G A L A L H V R 160
 tatggcatgactctggacgaggagaaggcgcgctgtgtctggagcaggccaggcagaaggcg 540
 Y G M T L D E E K A R V L E Q A R Q K A 180
 ttgtcgagtgacctgttccaggggagcaacaacgggtgagggagggggaggaggggggtgagg 600
 L S S A W S R E Q Q R V R E G E E G V R 200
 ctgtggacgggagggggaggaaggagctgctgagcgggaggaagggttctgggctacgac 660
 L W T E G E K R Q L L S G R K V L G Y D 220
 ggggtactacgtcctctccatagagcagtacccccgagctagcagactccgctaacaacatc 720
 G Y Y V L S I E O Y P E L A D S A N N I 240
 cagttcctcaggcagagcgaaataggggaagggttaa (SEQ.ID.NO.2) 756
 Q F L R Q S E I G K R stop (SEQ.ID.NO.3) 251
 cagacagaatcctcggcactggcc 780
 gccaaagagactacccccctccaaatcctgcccccaacctccctcgccctcccccttttc 840
 tctaaaaagggggaggggtccaggctagtgtgtgttttagcgccgactagctgaaacaaac 900
 agtaaaatgtagaatatcttaaaactgaactatacctaataactaccactgtggggcctgaa 960
 aatcaaacaaaaacgggtccaactgacgcaaagtgttgcctatgtgctatacagcgttga 1020
 atggactgtggactctcttgaaaagagagaaaaaaagtcaaaactctcggtttgtgaaa 1080
 ggagaaaaaacgttttttttttttttaaatagacttccctgaatttgctttcggaaaaaa 1140
 tatttttaaaaagaaagaagaatgtgtttacatacgcataaactacaacacgtctggac 1200
 taatagaagaaaagccttctggtttcttacacaggacaacgtctataatctgattctaca 1260
 tcctgacgactgacctttgattgacctttgcgtactgaaaaaggtagtgttgttgttcgc 1320
 agtaggacccatgggtctccaatgggtggttaactagacagttaaaaccacttgttgaaacca 1380
 cttgcttgttcttctgcttttcttccaaaagggacaaaacagctcccaccaagtgactt 1440
 ctttaccataactagatcaaagtgggacgttttgggctcgtgccgaattc-3' (SEQ.ID.NO.1) 1490

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FIGURE 2

O.mykiss Ten M3
 R.danio Ten M3
 M.musculus Ten M3
 H.sapiens Ten M3

SISGVQOEVTROAKAFLSFERMPEIQLSRRRSNREKPLWLFATAKSLIGK
 SISGVQOEVMROAKAFLSFERMPEIQLSRRRSSREKPLWLFATVKSIGK
 BIEGVQOOVAROAKAFLSLGKMAEVQVSRRKAGAEQSWLWFATVKSIGK
 BIEGVQOOVAROAKAFLSLGKMAEVQVSRRRAGGAQSWLWFATVKSIGK

O.mykiss Ten M3
 R.danio Ten M3
 M.musculus Ten M3
 H.sapiens Ten M4

GVMLAVT QGRVVTNALNIANEDCIKVAAVLNNAFYLEDLHFTVEGRDTH
 GVMLAITSKGOVATNALNIANEDCIKVTVLNNAFYLEDLHFTVEGRDTH
 GVMLAVS QGRVQTNVLNIANEDCIKVAAVLNNAFYLENLHFTIEGKDT
 GVMLAVS QGRVQTNVLNIANEDCIKVAAVLNNAFYLENLHFTIEGKDT

O.mykiss Ten M3
 R.danio Ten M3
 M.musculus Ten M3
 H.sapiens Ten M3

YFIKTSLPESDLGALRLTSGRKSLENGVNVTVSQSTTVVNGRTRRFADVE
 YFIKTSLPESDLGALRLTSGRKSLENGVNVTVSQSTTVVNGRTRRFADVE
 YFIKTTLPESDLGTLRLTSGRKALENGINVTVSQSTTVVNGRTRRFADVE
 YFIKTTLPESDLGTLRLTSGRKALENGINVTVSQSTTVVNGRTRRFADVE

O.mykiss Ten M3
 R.danio Ten M3
 M. musculus Ten M3
 H. sapiens Ten M3

LQYGALALHVRYGMTLDEEKARVLEQAROKALSSAWSREQQVRREGGEGV
 LQYGALALHVRYGMTLDEEKARVLEQAROKALSSAWAREQQQVRDGEEGV
 MOFGALALHVRYGMTLDEEKARILEQAROKALARAWAREQQQVRDGEEGA
 MOFGALALHVRYGMTLDEEKARILEQAROKALARAWAREQQQVRDGEEGA

O.mykiss Ten M3
 R.danio Ten M3
 M.musculus Ten M3
 H. sapiens M3

RLWTEGEKROLLSGRKVLGYDGYVLSIEQYPELADSANNIQFLRQSEIG
 RLWTEGEKROLLSSGKVLGYDGYVLSVEQYPELADSANNVQFLRQSEIG
 RLWTEGEKROLLSAGKVQGYDGYVLSVEQYPELADSANNIQFLRQSEIG
 RLWTEGEKROLLSAGKVQGYDGYVLSVEQYPELADSANNIQFLRQSEIG

O. mykiss Ten M3
 R. danio Ten M3
 M. musculus Ten M3
 H. sapiens Ten M3

KR (SEQ.ID.NO.3)
 KR (SEQ.ID.NO.12)
 KR (SEQ.ID.NO.6)
 KR (SEQ.ID.NO.10)

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FIGURE 3

Mouse Teneurin 1	MILGIQCELOKQLRNFI SLDQLPMTPOYNEGRCL EGGKQPRFAAVPSVFG
Mouse Ten eurin M2	LITGVQQTTERHNOAFLALEGQVITKKLHAS IREKAGHWFATTTPIIG
Mouse Ten eurin M3	PIFGVQQQVARQAKAFLSL GKMAEVQVSRRKAGAEQSWLWFATVKSLIG
Mouse Ten eurin M4	SILGVQCEVQKQLKAFVTLERFDQLYGSTITSCQQAPETKKFASSGSIFG
Mouse Teneurin 1	KGIKFATKEGIVTADIIGVANEDSRRLAAILNNAHYLENLHFTIEGRDTH
Mouse Teneurin 2	KGIMFAIKEGRVTTGVSSIASEDSRKVASVLNNAYYLDKMHSIEGKDTH
Mouse Teneurin 3	KGVMLAVSQGRVQTNVLNIANEDCIKVAAVLNNAFYLENLHFTIEGKDTH
Mouse Teneurin 4	KGVKFALKDGRVTTDIISVANEDGRRIAAILNNAHYLENLHFTIDGVDTH
Mouse Teneurin 1	YFIKLGSL EEDLV LIGNTGRRILENGVNVTVSQMTSVLNGRTRRFADIQ
Mouse Teneurin 2	YFVKIGAADGDLVTLGTTIGRKVLESGVNVTVSQPTLLVNGRTRRFTNIE
Mouse Teneurin 3	YFIKTTTPESDLGTLRLTSGRKALENGINVTVSQSTTVNGRTRRFADVE
Mouse Teneurin 4	YFVKPGPSEGD LAILGLSGGRR TLENGVNVTVSQINTML
Mouse Teneurin 1	LQHGALCFNIRYGT T VEEKNHVLEMARQRAVAQAWTQEQRRLQEGE
Mouse Teneurin 2	FQYSTLLLSIRYGLTPDTLDEEKARVLDQAGQRALGTAWAKEQQKARDGR
Mouse Teneurin 3	MQFGALALHVRYGMT LDEEKARILEQARQRALARAWAREQQRVRDGE
Mouse Teneurin 4	IQLOYRALCLNTRYGT TVDEEKVRVLELARQRAVRQAWAREQQRRLREGE
Mouse Teneurin 1	EGTRVWTEGEKQQLLG TGRVQGYDGYFVLSVEQYLELSDSANNIHFMRS
Mouse Teneurin 2	EGSRLWTEGEKQQLLSTGRVQGYEGYYVLPVEQYPELADSSNIQFLRQ
Mouse Teneurin 3	EGARLWTEGEKRQQLSAGKVQGYDGYVLSVEQYPELADSANNIQFLRQ
Mouse Teneurin 4	EGLRAWTDGEKQQVLNTGRVQGYDGFFVTSVEQYPELSDSANNIHFMRS
Mouse Teneurin 1	EIGRR (SEQ.ID.NO.4)
Mouse Teneurin 2	EMGKR (SEQ.ID.NO.5)
Mouse Teneurin 3	EIGKR (SEQ.ID.NO.6)
Mouse Teneurin 4	EMGRR (SEQ.ID.NO.7)

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FIGURE 4

Human Ten M1	TILGIQCELOKQLRNFISL	D QLEPMTERYNDGRCLEGGKQ	PRFA
Human Ten M2	LITGVQQTTERHNAFMALE	GQV ITKKLHASIREKAGHW	FA
Human Ten M3	PIFGVQQQVARQAKAFLSLGKMAEVQV	SRRRAGGA	QS WLW FA
Human Ten M4	SILGVQCEVQKQLKAFVTLER	FD QL YGSTITSCLQAPKT	KKFA
Human Ten M1	AVPSVFGKGIKFAIKDGIVTADIIGVANEDSRRLAAILNNAHYLENLHFT		
Human Ten M2	TTTPIIGKGIMFAIKEGRVTTGVSSIASEDSRKVASVLNNAYYLDKMHYS		
Human Ten M3	TVKSLIGKGVMLAVSQGRVQTNVLNLANEDCIKVAAVLNNAFYLENLHFT		
Human Ten M4	SSGSVFGKGVKFKALDGRVTTDIISVANEDGRRVAAILNNAHYLENLHFT		
Human Ten M1	IEGRDTHYFIKLSLEEDLVLIGNTGRRILENGVNVTVSQMTSVLNGRT		
Human Ten M2	IEGKDTHYFVKIGSADGDLVTLGTTIGRKVLESGVNVTVSQPTLLVNGRT		
Human Ten M3	IEGKDTHYFIKTTTPESDLGTLRLTSGRKALENGINVTVSQSTTVVNGRT		
Human Ten M4	IDGVDTHYFVKPGPSEGDLAILGLSGGRRTLENGVNVTVSQINTVLSGRT		
Human Ten M1	RRFADIQLQHGAFCFNIRYGT	VEEEKNHVLEIARQRAVAQAWTKEQ	
Human Ten M2	RRFTNIEFQYSTLLLSIRYGLTPDTLDEEKARVLDQARQALGTAWAKEQ		
Human Ten M3	RRFADVEMQFGALALHVRYGMT	LDEEKARILEQARQALARAWAREQ	
Human Ten M4	RRYTDIQLQYGALCLNTRYGT	LDEEKARVLELARQRAVRQAWAREQ	
Human Ten M1	RRLQEGEEGIRAWTEGEKQOLLSTGRVQGYDGYFVLSVEQYLELSDSANN		
Human Ten M2	QKARDGREGSRLWTEGEKQOLLSTGRVQGYEGYYVLPVEQYPELADSSN		
Human Ten M3	QRVRDGEEGARLWTEGEKQOLLSTGRVQGYDGYFVLSVEQYPELADSSN		
Human Ten M4	QRLREGEGLRAWTEGEKQOLLSTGRVQGYDGYFVLSVEQYPELADSSN		
Human Ten M1	IHFMRQSEIGRR	(SEQ.ID.NO.8)	
Human Ten M2	IQFLRQNEGMKR	(SEQ.ID.NO.9)	
Human Ten M3	IQFLRQSEIGRR	(SEQ.ID.NO.10)	
Human Ten M4	IHFMRQSEMGR	(SEQ.ID.NO.11)	

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FIGURE 5

Human TCAP-1

cag cag ctt ttg agc act ggg cgg gta caa
ggt tac gat ggg tat ttt gtt ttg tct gtt
gag cag tat tta gaa ctt tct gac agt gcc
aat aat att cac ttt atg aga cag agc gaa
ata ggc agg agg taa

(SEQ.ID.NO.76
+stop codon)

Human TCAP-2

cag cag ctt ctg agc acc ggg cgc gtg caa
ggg tac gag gga tat tac gtg ctt ccc gtg
gag caa tac cca gag ctt gca gac agt agc
agc aac atc cag ttt tta aga cag aat gag
atg gga aag agg taa

(SEQ.ID.NO.84
+stop codon)

Human TCAP-3

cgg cag ctg ctg agc gcc ggc aag gtg cag
ggc tac gac ggg tac tac gta ctc tcg gtg
gag cag tac ccc gag ctg gcc gac agc gcc
aac aac atc cag ttc ctg cgg cag agc gag
atc ggc agg agg taa

(SEQ.ID.NO.92
+stop codon)

Human TCAP-4

cag cag gtg ctg agc aca ggg cgg gtg caa
ggc tac gac ggc ttt ttc gtg atc tct gtc
gag cag tac cca gaa ctg tca gac agc gcc
aac aac atc cac ttc atg aga cag agc gag
atg ggc cgg agg tga

(SEQ.ID.NO.100
+stop codon)

Mouse TCAP-1

cag cag ctt ttg ggc acc ggg agg gtg cag
ggg tat gat ggg tat ttt gtc ttg tct gtt
gag cag tat tta gaa ctt tca gac agt gcc
aac aat att cac ttc atg aga cag agt gaa
ata ggc agg agg taa

(SEQ.ID.NO.44
+stop codon)

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FIGURE 5 (CONT'D)

Mouse TCAP-2

cag caa ctc ctg agc acg gga cgg gta caa
ggt tat gag ggc tat tac gta ctt ccg gtg
gaa cag tac ccg gag ctg gca gac agt agc
agc aac atc cag ttc tta aga cag aat gag
atg gga aag agg taa

(SEQ.ID.NO.52
+stop codon)

Mouse TCAP-3

cgg cag ctg ctg agc gct ggc aag gtg cag
ggc tac gat ggg tac tac gta ctg tcg gtg
gag cag tac ccc gag ctg gct gac agt gcc
aac aac atc cag ttc ttg cga caa agt gag
atc ggc aag agg taa

(SEQ.ID.NO.60
+stop codon)

Mouse TCAP-4

cag cag gtg ctg aac acg ggg cgg gtg caa
ggc tac gac ggc ttc ttt gtg acc tcg gtc
gag cag tac cca gaa ctg tca gac agc gcc
aac aat atc cac ttc atg aga cag agc gag
atg ggc cga agg tga

(SEQ.ID.NO.68
+stop codon)

Zebrafish TCAP-3

agg cag ttg ctc agc tct ggg aag gtg ctg
ggt tac gat ggt tac tat gta cta tca gtg
gag caa tac cct gaa ctg gcc gac agt gcc
aac aat gtc cag ttc ttg agg cag agt gag
ata ggg aag agg taa

(SEQ.ID.NO.28
+stop codon)

Zebrafish TCAP-4

cag cag ctc cta agc tct gga cgt gta cag
ggc tac gaa ggc ttc tac ata gta tca gtc
gac cag ttc cca gag ttg act gac aac ata
aat aac gtc cat ttc tgg cga cag act gag
atg gga cgc agg tga

(SEQ.ID.NO.36
+stop codon)

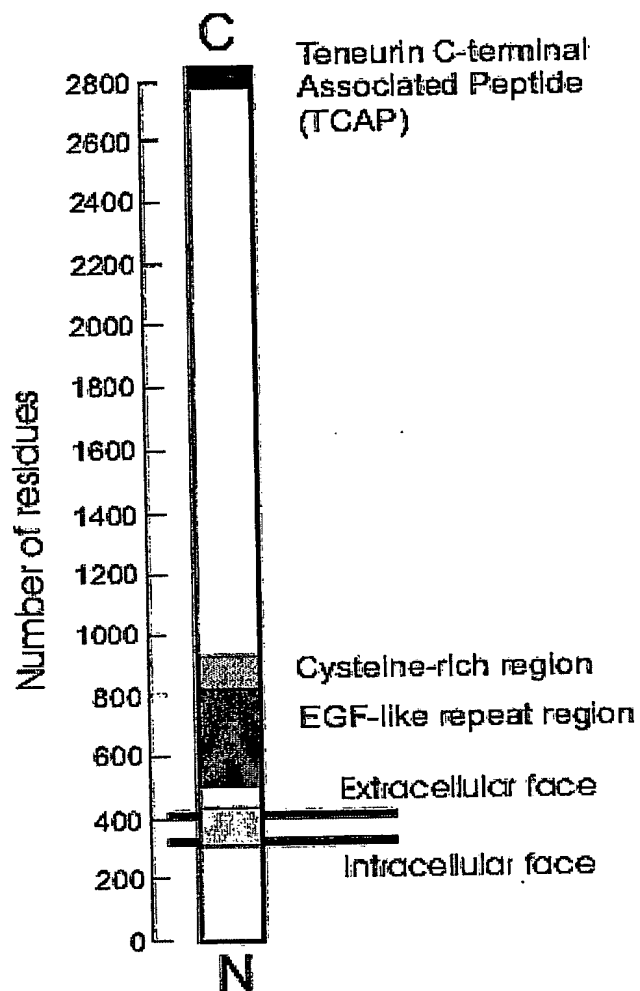
Rainbow Trout TCAP-3

5'-agg cag ctg ctg agc ggg agg aag gtt ctg
ggc tac gac ggg tac tac gtc ctc tcc ata
gag cag tac ccc gag cta gca gac tcc gct
aac aac atc cag ttc ctc agg cag agc gaa
ata ggg aag agg taa-3'

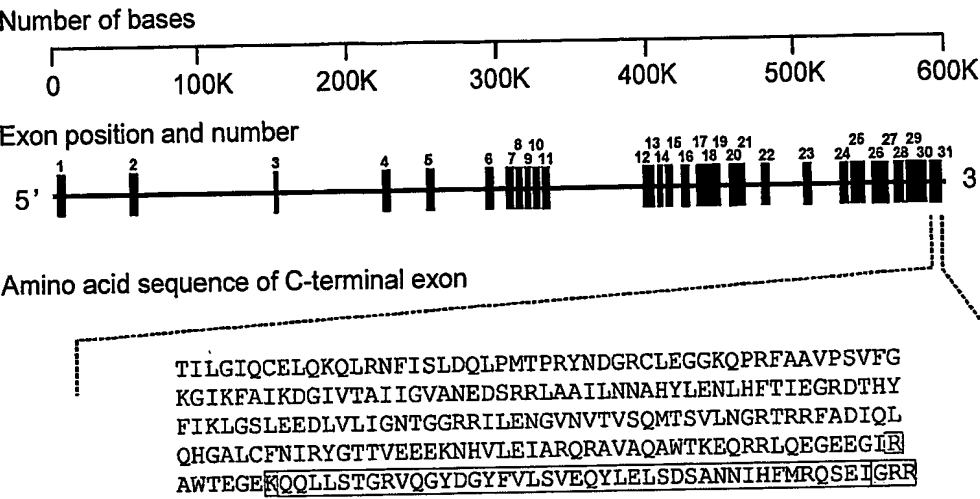
(SEQ.ID.NO.20
+stop codon)

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FIGURE 6A



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FIGURE 6B



Mammalian TCAP Sequences		Accession Numbers	
human TCAP 1	QQLSTGRVQGYDGYFVLSVEQYLELSDSANNIHFMROSEI-NH2	nm_014253	(SEQ. ID. NO. 69)
human TCAP 2	QQLSTGRVQGYEGYYVLPVEQYPELADSSNIQFLRONEM-NH2	xm_047995	(SEQ. ID. NO. 78)
human TCAP 3	QLLSAGKVQGYDGYVLSVEQYPELADSANNIQFLROSEI-NH2	ak001336	(SEQ. ID. NO. 85)
human TCAP 4	QQVLTGRVQGYDGFVISVEQYPELSDSANNIHFMROSEM-NH2	ak056531	(SEQ. ID. NO. 94)
mouse TCAP 1	QQLSGTGRVQGYDGYFVLSVEQYLELSDSANNIHFMROSEI-NH2	nm_011855	(SEQ. ID. NO. 37)
mouse TCAP 2	QQLSTGRVQGYEGYYVLPVEQYPELADSSNIQFLRONEM-NH2	nm_011856	(SEQ. ID. NO. 76)
mouse TCAP 3	QLLSAGKVQGYDGYVLSVEQYPELADSANNIQFLROSEI-NH2	nm_011857	(SEQ. ID. NO. 53)
mouse TCAP 4	QQVLTGRVQGYDGFVTSVEQYPELSDSANNIHFMROSEM-NH2	ab025413	(SEQ. ID. NO. 66)
Rat TCAP 2	QQLSTGRVQGYEGYYVLPVEQYPELADSSNIQFLRONEM-NH2	nm_020088	(SEQ. ID. NO. 78)
Avian TCAP Sequences		9/30	
chicken TCAP 1	QQLLNTGRVQGYDGYFVLSVEQYLELSDSANNIHFMROSEI-NH2	aj238613	(SEQ. ID. NO. 101)
chicken TCAP 2	QQLLNTGRVQGYEGYYVLPVEQYPELADSSNIQFLRONEM-NH2	aj279031	(SEQ. ID. NO. 136)
Piscine TCAP Sequences			
Rainbow trout TCAP 3	QLLSGRKVLGYDGYVLSIEQYPELADSANNIQFLROSEI-NH2	not entered Yet (SEQ. ID. NO. 13)	
zebrafish TCAP 3	QLLSGKVLGYDGYVLSVEQYPELADSANNVQFLROSEI-NH2	nm_130968	(SEQ. ID. NO. 21)
zebrafish TCAP 4	QQLSSGRVQGYEGYIVSDQFPFLTDNINNVHFMROTEM-NH2	ab026980	(SEQ. ID. NO. 30)
Insect Drosopholia	ELVQHGDVDGWNG1DIHSIHKYPQLADOPGNVAFQORDAK	(SEQ. ID. NO. 103)	

FIGURE 7A

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FIGURE 7B

Protein name	Species	Truncated peptide	% Identical	% Homolog
Ten-m1/odd Odz1	<i>M musculus</i>	QLLGSTGRVQGYDGYFVLSVEQYLELSDSANNIHFMROSEI	100	
Teneurin-1	<i>G gallus</i>	QLLNTGRVQGYDGYFVLSVEQYLELSDSANNIHFMROSEI	97	97
Odz (odd Oz1/ten-m1) / tenascin M	<i>H sapiens</i>	QLLSTGRVQGYDGYFVLSVEQYLELSDSANNIHFMROSEI	97	97
Mouse DOC4-like protein	<i>H sapiens</i>	QLLSTGRVQGYDGYFVLSVEQYLELSDSANNIHFMROSEI	97	97
DOC4/Ten-m4 / odd Oz4	<i>M musculus</i>	QLLNTGRVQGYDGYFVLSVEQYLELSDSANNIHFMROSEI	85	92
Similar to odd Oz4/ten-m4/ KIAA1302 protein	<i>H sapiens</i>	QLLSTGRVQGYDGYFVLSVEQYLELSDSANNIHFMROSEI	85	95
Hypothetical protein/ DKFZp564O0423.1 (fragment)	<i>H sapiens</i>	QLLSTGRVQGYDGYFVLSVEQYLELSDSANNIHFMROSEI	85	95
odd Oz/ten-m3/ ODZ3	<i>M musculus</i>	QLLSAGKVGQYDGYFVLSVEQYLELSDSANNIQFTRQSEI	80	90
Hypothetical protein FLJ10474; FLJ10886; unnamed protein products: AK001336, AK027473, AK001748	<i>H sapiens</i>	QLLSAGKVGQYDGYFVLSVEQYLELSDSANNIQFTRQSEI	80	90
Putative (AK011924)	<i>M musculus</i>	QLLSAGKVGQYDGYFVLSVEQYLELSDSANNIQFTRQSEI	80	90
N/A	<i>R trout</i>	QLLSGRVVLGYDGYFVLSVEQYLELSDSANNIQFTRQSEI	80	90
Ten-m3	<i>D rerio</i>	QLLSGKVLGYDGYFVLSVEQYLELSDSANNIQFTRQSEI	75	90
Neurestin alpha	<i>R norvegicus</i>	QLLSTGRVQGYEGYFVLPVEQYPELADSSNNIQFTRONEI	70	90
Teneurin-2	<i>G gallus</i>	QLLSTGRVQGYEGYFVLPVEQYPELADSSNNIQFTRONEI	70	90
Ten-m2/ ODZ2/ odd Oz2	<i>M musculus</i>	QLLSTGRVQGYEGYFVLPVEQYPELADSSNNIQFTRONEI	70	90
Odd Oz/ten-m2/ KIAA1127 protein / hypothetical protein	<i>H sapiens</i>	QLLSTGRVQGYEGYFVLPVEQYPELADSSNNIQFTRONEI	70	90
Hypothetical protein	<i>H sapiens</i>	QLLSTGRVQGYEGYFVLPVEQYPELADSSNNIQFTRONEI	70	90
Odd Oz/ten-m2	<i>H sapiens</i>	QLLSTGRVQGYEGYFVLPVEQYPELADSSNNIQFTRONEI	70	90
Ten-m4	<i>D rerio</i>	QLLSGGRVQGYEGYFVLPVEQYPELADSSNNIHFWROSEI	57	89
odd Oz/tenascin-like protein/Ten-m gene product	<i>D melanogaster</i>	QLLHGHGVDGKNGIDILHSFHHYPGLADDPGNMAFORDAK	30	60

CRF Peptide Family

- human CRF
- human urocortin
- human urocortin 2
- human urocortin 3

SEEPPI~~SLD~~LTFFHL~~RE~~VE~~FM~~ARA~~EQ~~LAQ~~QA~~HSNR~~EL~~MEIL (SEQ. ID. NO. 104)
DNPSLS~~LD~~LTFFHL~~RT~~LE~~LA~~RTQSORE~~AE~~QNRI~~FF~~DS (SEQ. ID. NO. 105)
IVLSLD~~PI~~GLIQI~~FL~~EO~~AR~~ARA~~RE~~QAT~~NA~~LLAR (SEQ. ID. NO. 106)
FTLSLD~~PT~~N~~IM~~NL~~IN~~IA~~AK~~NL~~ER~~AQ~~AA~~NA~~LE~~MAQI (SEQ. ID. NO. 107)

TCAP Peptide Family

- human TCAP 1
- human TCAP 2
- human TCAP 3
- human TCAP 4

QQLLS~~TGR~~VQGYD~~GV~~FLSV~~EQ~~YLE~~LS~~DSANN~~HE~~MRQSEI (SEQ. ID. NO. 70)
QQLLS~~TGR~~VQGY~~EG~~VLPV~~EQ~~PELAD~~SS~~NIQ~~FL~~PQ~~NE~~M (SEQ. ID. NO. 78)
QQLLSA~~GH~~VQGYD~~GV~~FLSV~~EQ~~PELAD~~SS~~ANNI~~Q~~FLQ~~SE~~I (SEQ. ID. NO. 85)
QQLLS~~TGR~~VQGYD~~GV~~FLSV~~EQ~~PEL~~SD~~SANN~~HE~~MRQSEM (SEQ. ID. NO. 94)

FIGURE 8

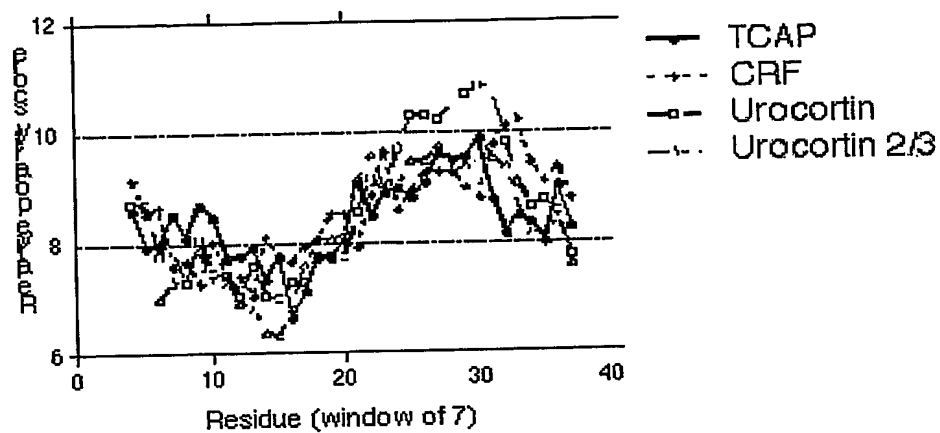
Human CRF Paralogues		SEQ ID NOS
human CRF	SEEPPLS LDITFHLLREVLEMAFAEQLAQQAHSNRKEM EIT	104
human urocortin	DNPSLS IDITFHLLRTLEFAARTOSQREAEQNRIT DS	105
human urocortin 2	IVLS LDPIGLLIQILEQARARAREQATTNARAR AR	106
human urocortin 3	FTLS LDPTNIMNLLNNAKAKNIARAQAANAHEM AQT	107
Human TCAP Paralogues		
human TCAP 1	QQLSTGRQGYDGYFVLS EQYLELS DSANNHMMRQSEI	70
human TCAP 2	QQLSTGRQGYGYVLE EQYPELA DSSNQQRRQNEM	78
human TCAP 3	QQLSAGKQGYDGYVLS EQYPELA DSANNHMMRQSEI	85
human TCAP 4	QQLSTGRQGYDGGFFVLS EQYPELS DSANNHMMRQSEM	94

FIGURE 9

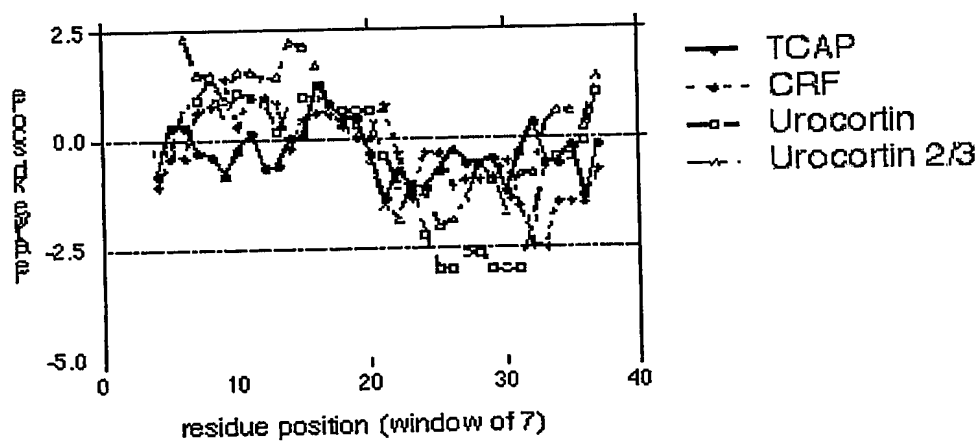
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FIGURE 10

Grantham Polarity Prediction



Kyte-Doolittle Hydrophobicity Prediction



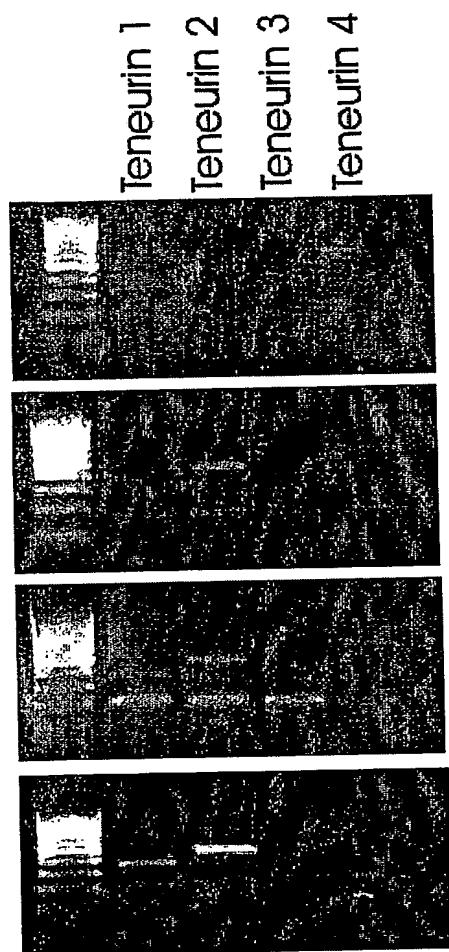
Q L L S G R K V L G Y D G Y Y V L S I E Q Y P E I A P S A N N I Q L R Q S E I - N H 2
Q Q L L S T G R V Q G Y D G Y F V L S I E Q Y L E L S D S A N N I H E R Q S E I - N H 2
M G M G P S L S I V N P M D V I R Q R L L E I A R R R L R D A E E Q I Q Q I - N H 2
T G A Q S L S I V A P L D V I R Q R I M N E L N R R R R E L Q S R I Q O N R Q L Q S I - N H 2
S P T I S I T A P I D V I R K T W E Q E R A R K Q M V A Q N N R E F L N S L N - O H
R M P S L S I D L P M S V I R Q K L S E K E R K V H A L R A A A N R F E L N Q I - N H 2
S L S V N P A V D I L Q H R Y N E K V A Q N N R F E L N R V - N H 2
T G S G P S L S I V N P L D V I R Q R L L E I A R R R R Q S Q D Q I Q T J - N H 2
S E E P P S L D L T F H L R E V E M A R A E Q L A Q Q A H S N R K E I H - N H 2
S D D P P S L D L T F H L R Q M E M S R A E Q L Q Q Q A H S N R K E I H - N H 2
D D P P S I D L T F H L R T I E L A R T Q S Q R E R A E Q N R I D S V - N H 2
Q G P P S I D L S L E L R K M E I E K Q E K E K Q Q A A N N R I L I D T L - N H 2
N D D P P S I D L T F H L R N M E M A R N E N Q R E Q A G L N R K L I D E V - N H 2
V L S L D V P I G L R I I E Q A R Y K A R N Q A A T N Q L I I A H V - N H 2
L T L S L D V P T N I N V L S V A K A K N L R A K A A E N R L I I A H I - N H 2
F T L S L D V P T N I N L L E N I A K A K N L R A Q A A A N H E N A Q I - N H 2

O mykiss TCAP-3 (SEQ.ID.NO.13)
R. danio TCAP-3 (SEQ.ID.NO.22)
L. migratoria DP (SEQ.ID.NO.108)
A. domesticus DP (SEQ.ID.NO.109)
T. molitor DP (SEQ.ID.NO.110)
M. sexta DP-I (SEQ.ID.NO.111)
M. sexta DP-II (SEQ.ID.NO. 112)
P. Americana (SEQ.ID.NO.113)
R. norvegicus CRF (SEQ.ID.NO.104)
O. keta CRF (SEQ.ID.NO.114)
R. norvegicus UCN (SEQ.ID.NO.115)
P. sauvageii SVG (SEQ.ID.NO.116)
C. carpio UI (SEQ.ID.NO.117)
M. musculus UCN2 (SEQ.ID.NO.118)
R. danio UCN2 (SEQ.ID.NO.119)
H. sapiens UCN3 (SEQ.ID.NO.107)

FIGURE 11

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Figure 12



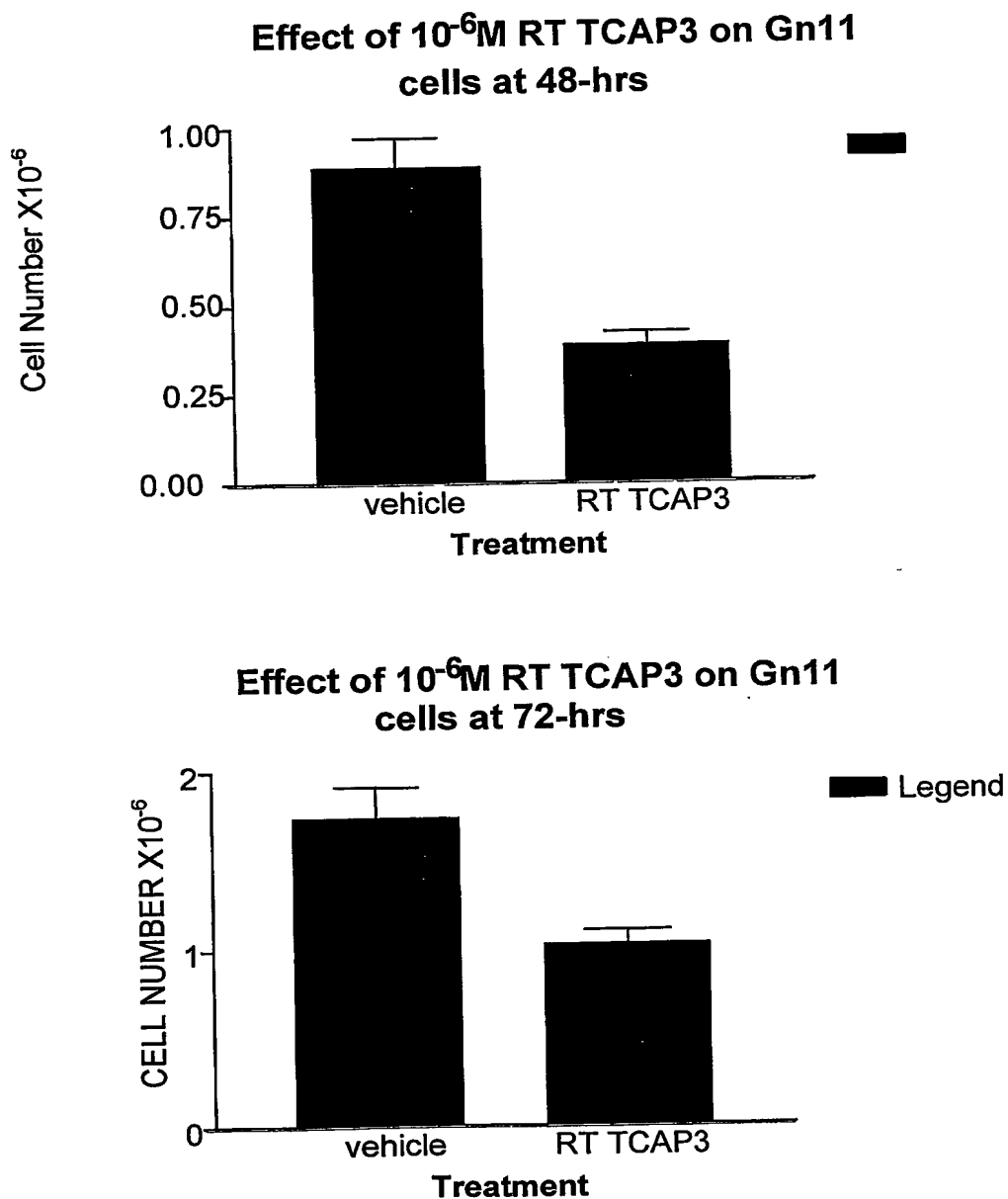
Whole Mouse Brain

NLT immortalized neurons

Gn11 immortalized neurons

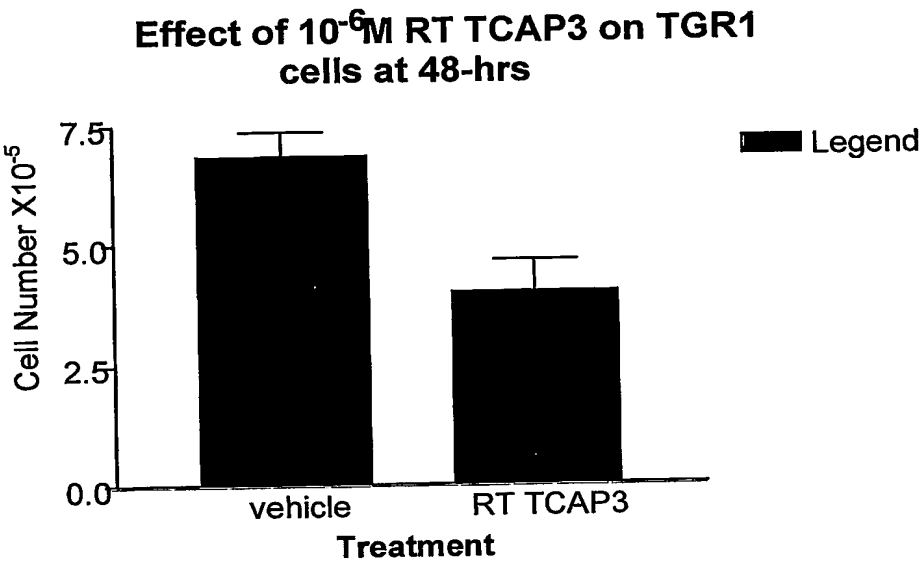
Neuro2a neuroblastoma cells

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FIGURE 13

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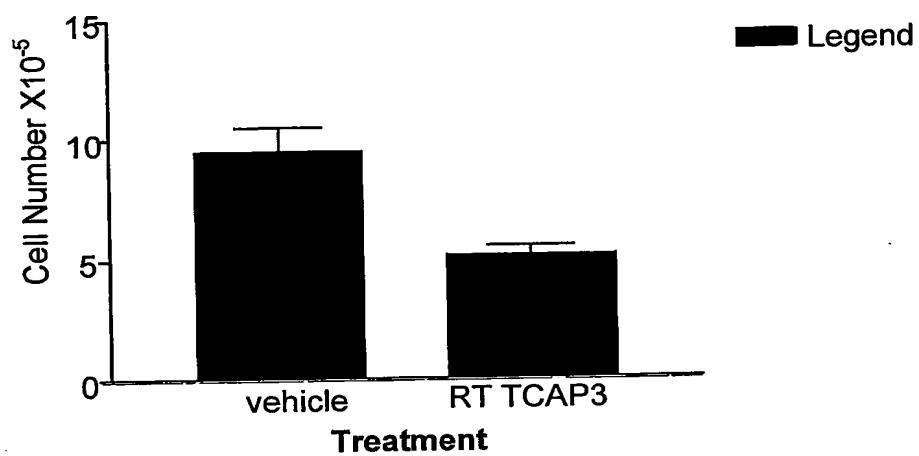
FIGURE 14



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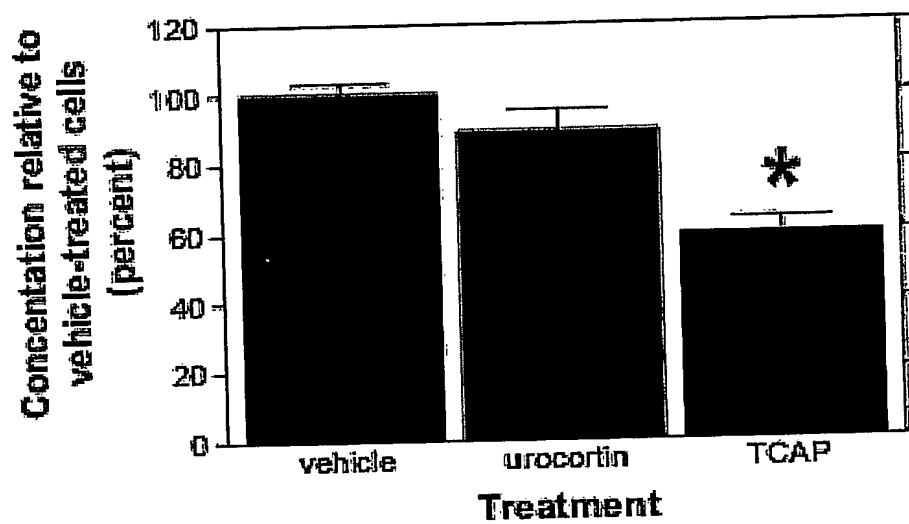
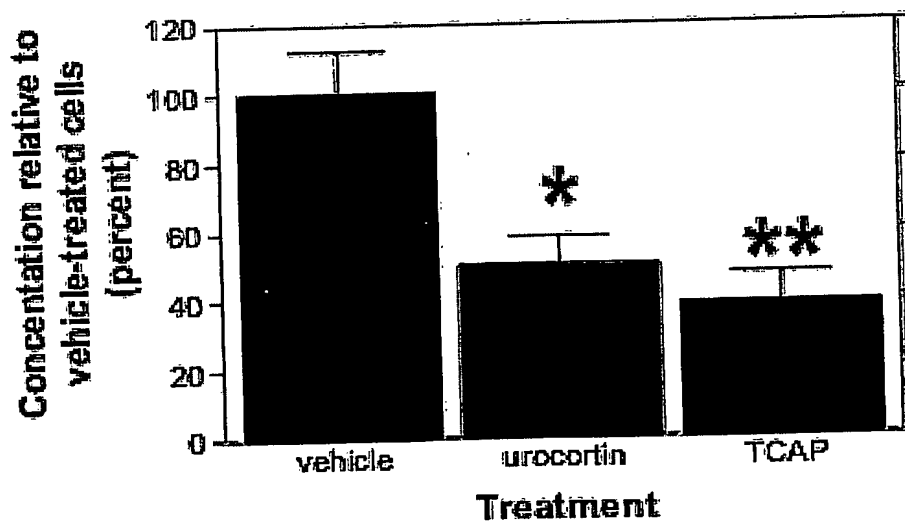
FIGURE 15

**Effect of 10^{-6} M RT TCAP3 on
HO16.4c cells at 48-hrs**



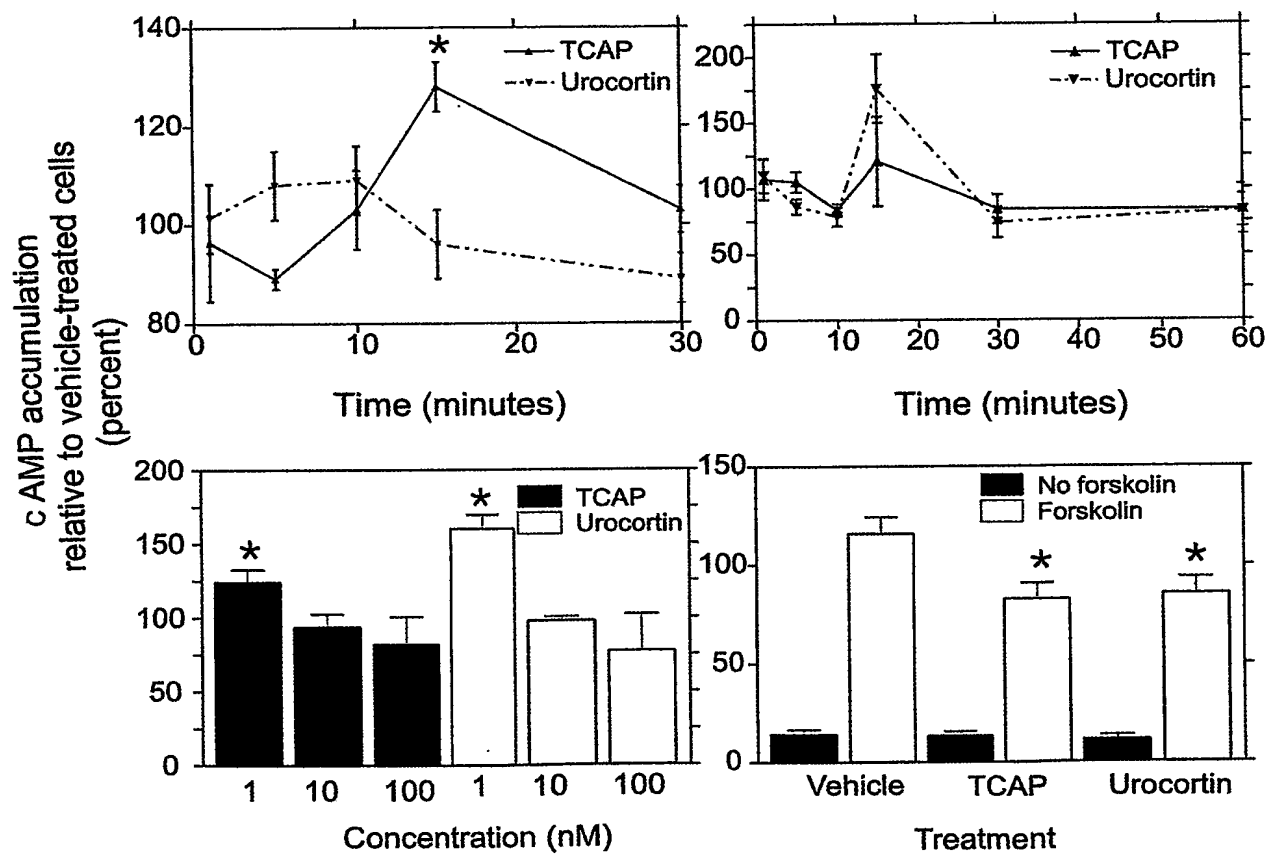
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FIGURE 16

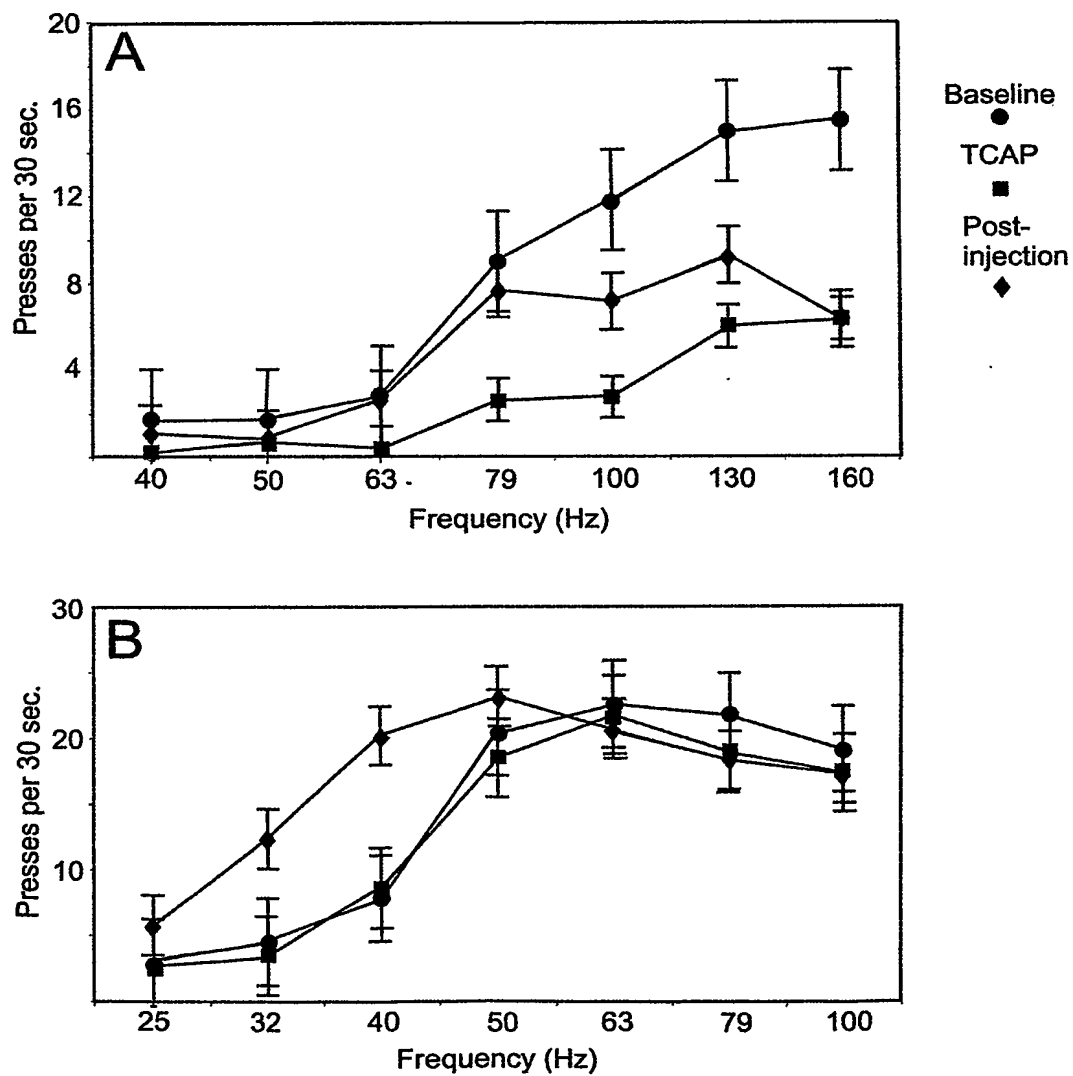
A cAMP**B cGMP**

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FIGURE 17



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FIGURE 18

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FIGURE 19

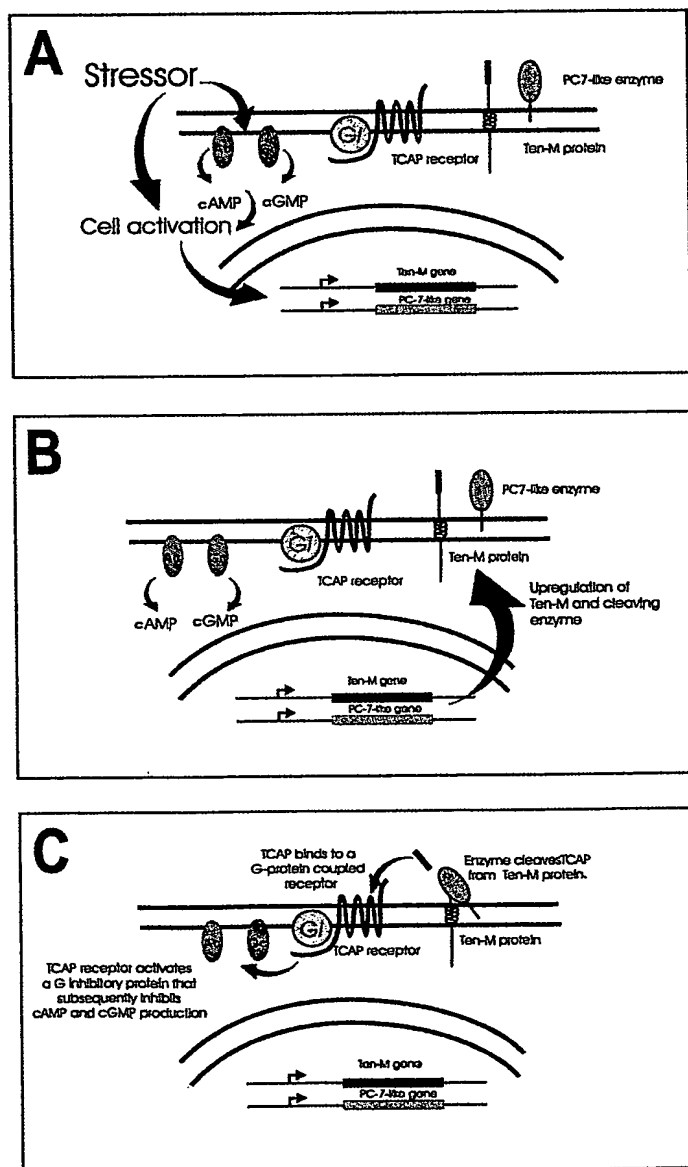
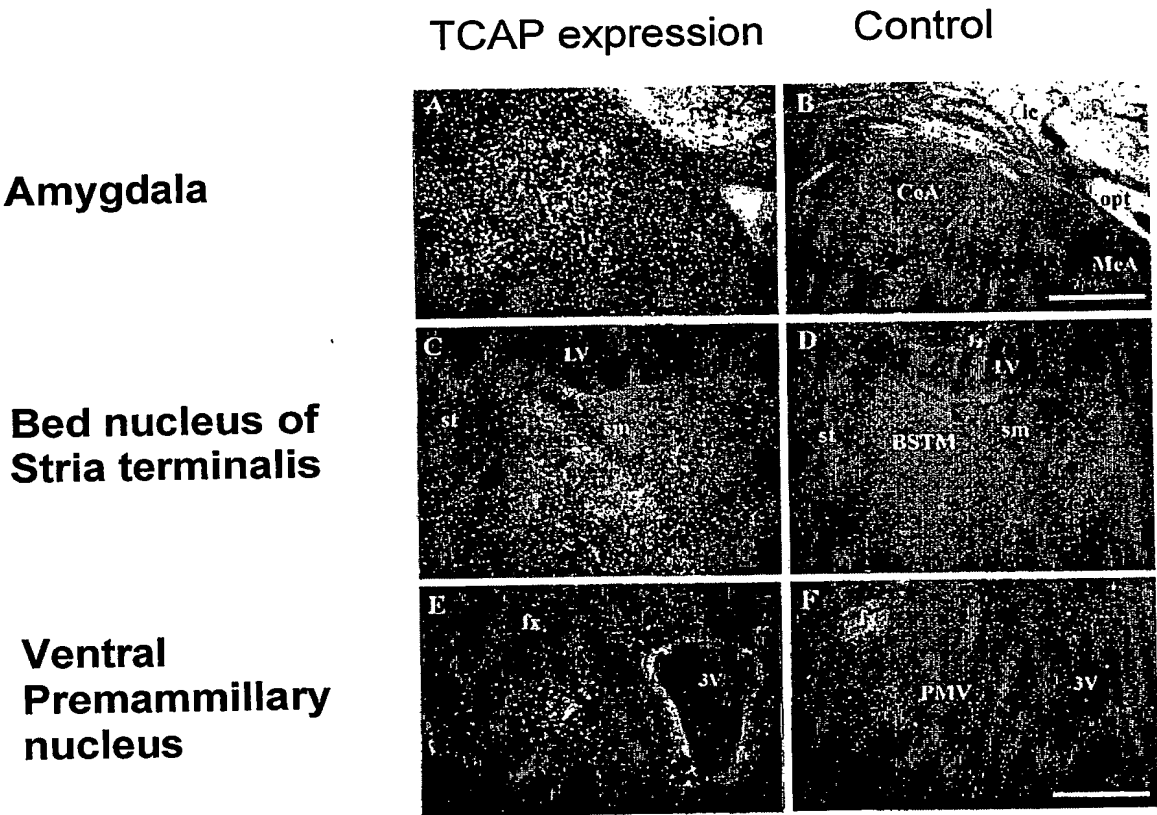


FIGURE 20

In Situ Hybridization



Vehicle-Treated Rats-ICV injected

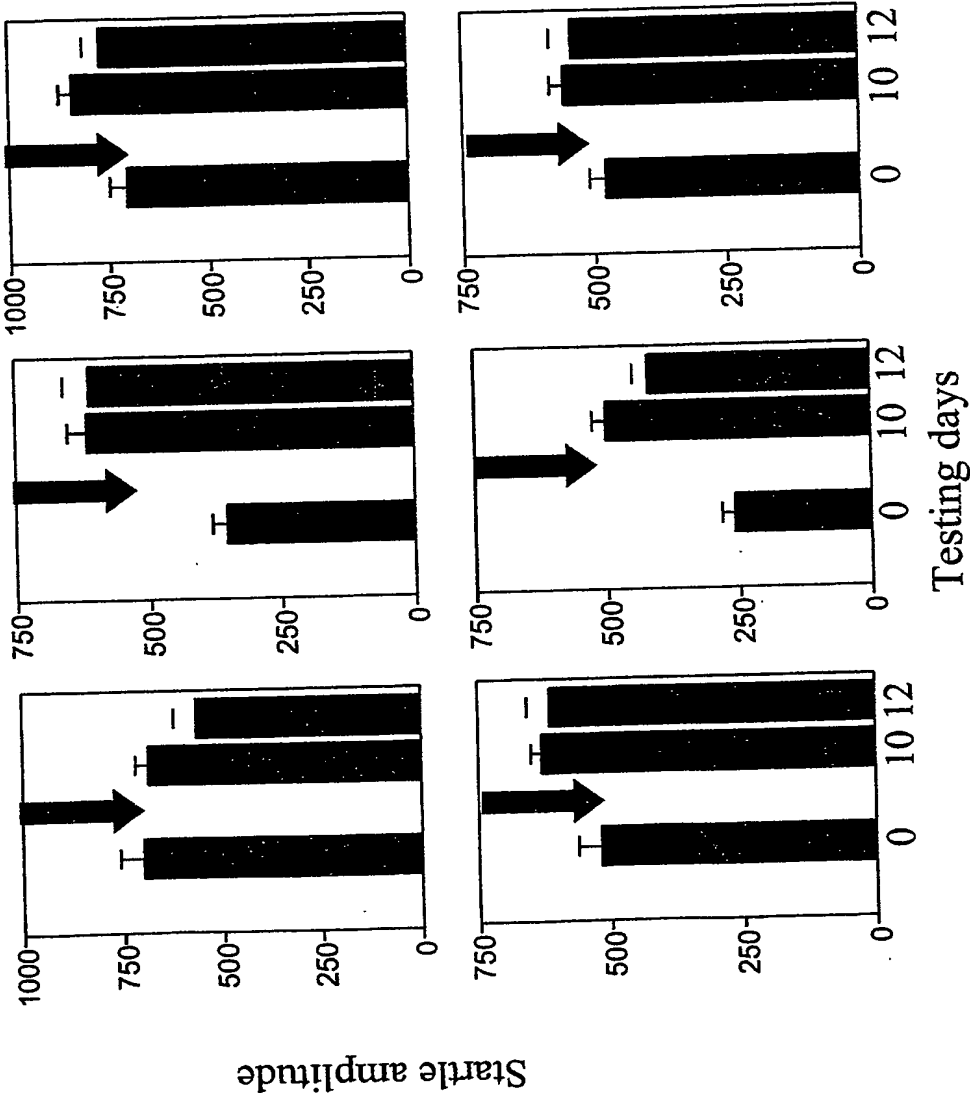


FIGURE 21A

TCAP-1 Treated Rats-ICV injected

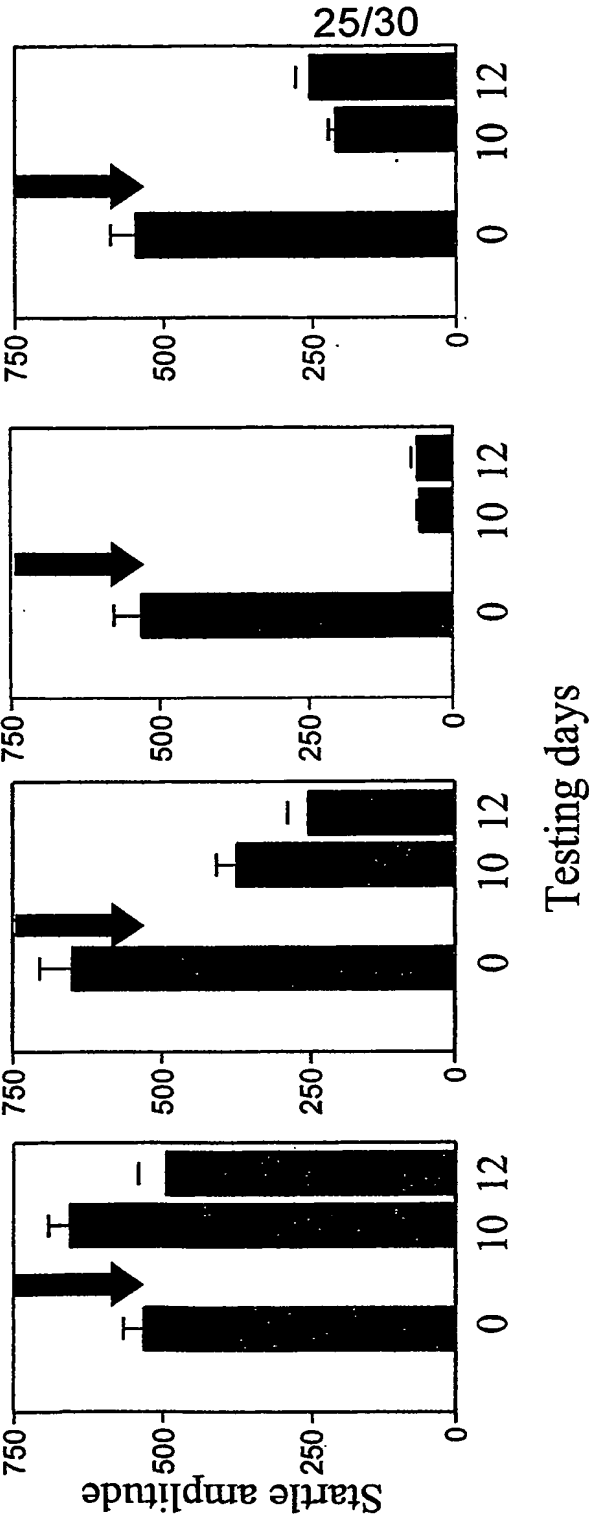
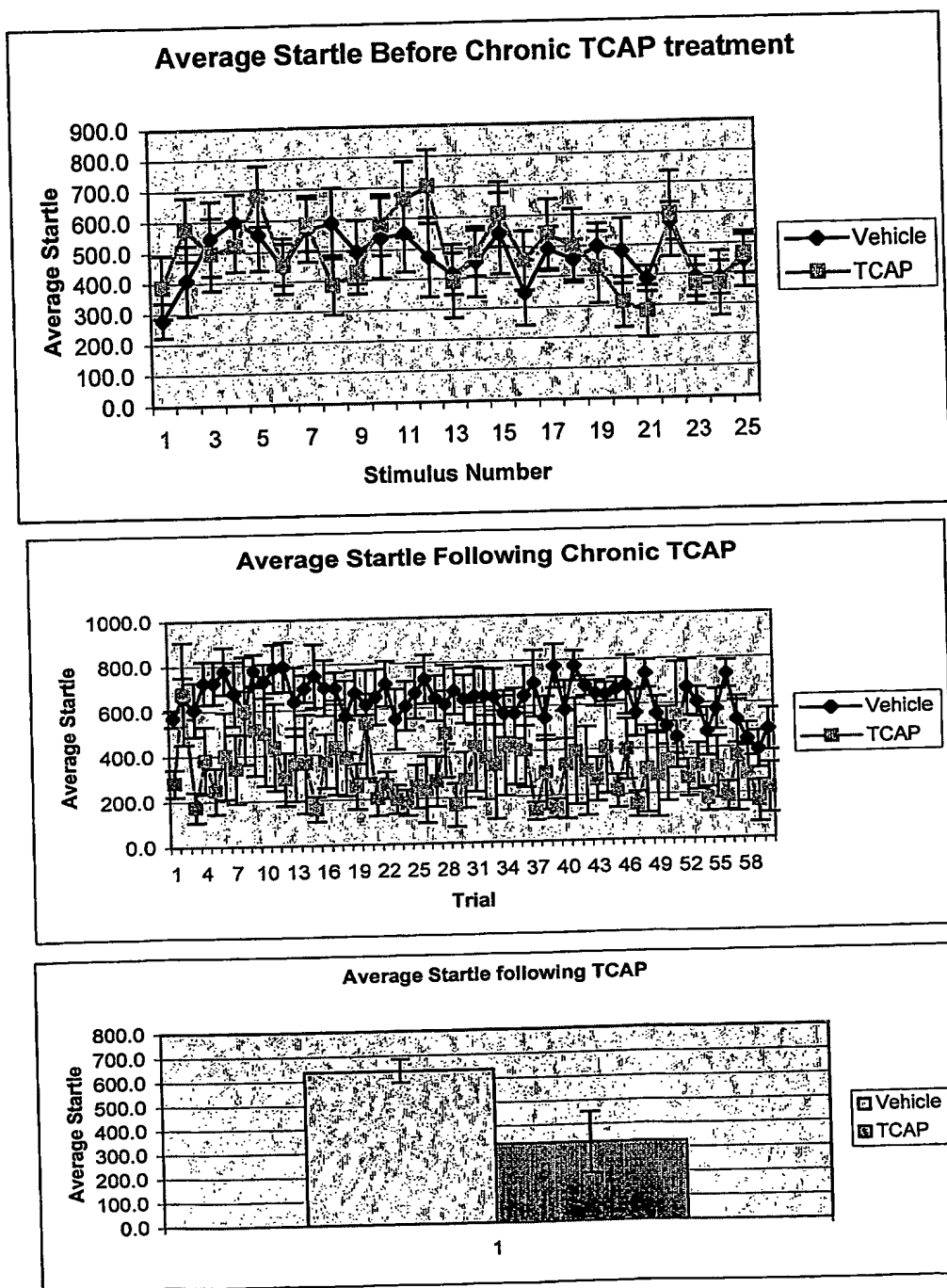


FIGURE 21B

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FIGURE 22

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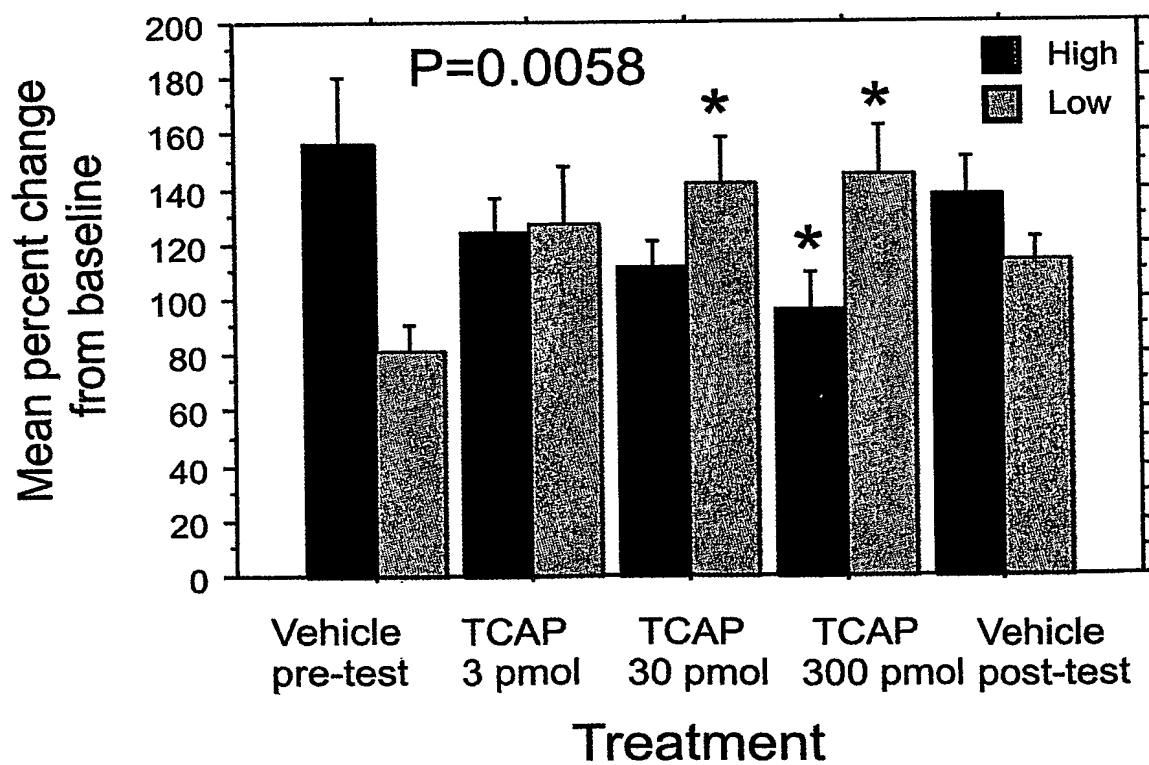
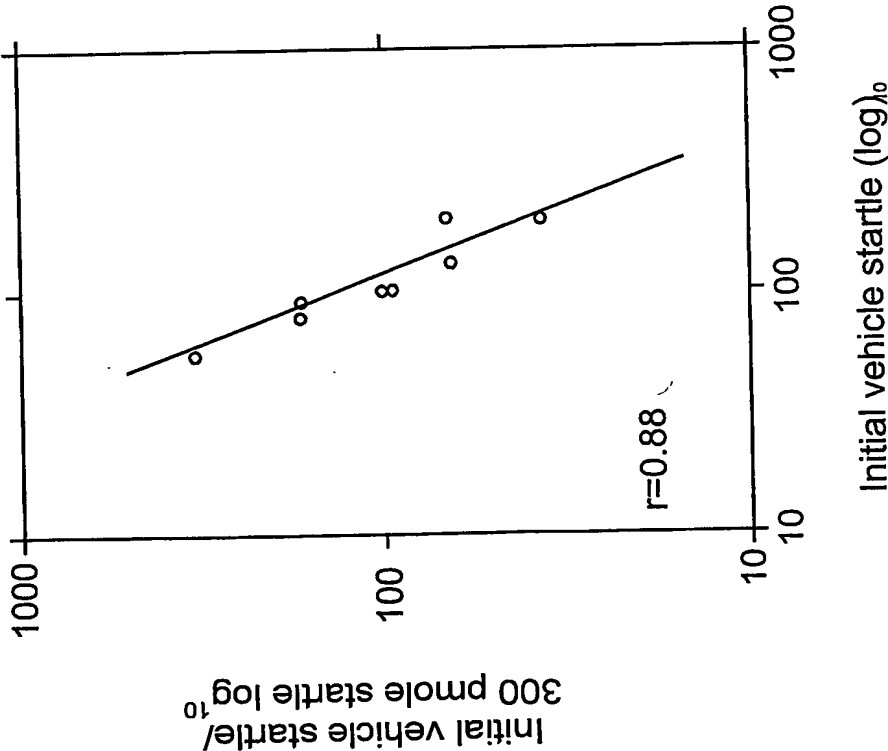
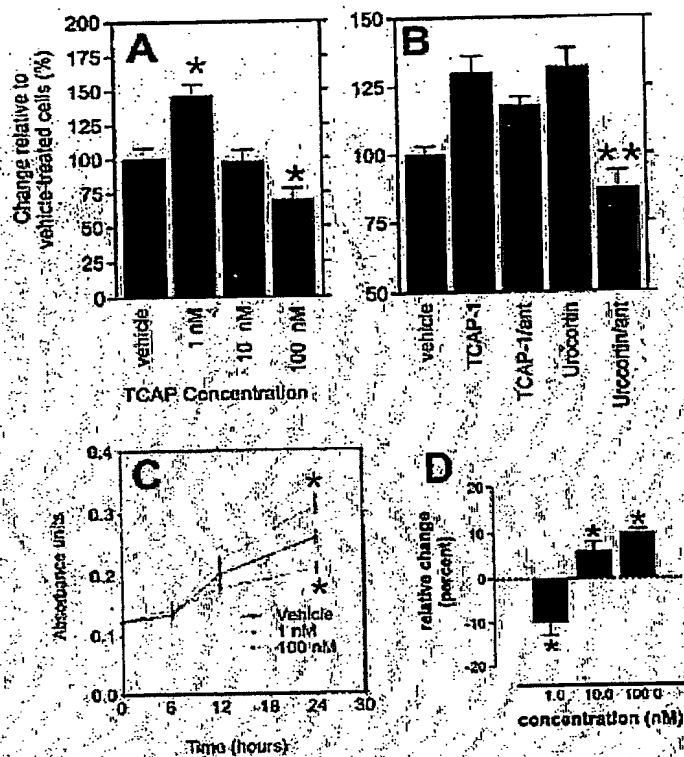
FIGURE 23

FIGURE 24
Summary of amygdala-injected TCAP-1



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FIGURE 25



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FIGURE 26

